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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,978	05/10/2001	Anna M. Zara	10007989	8095

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

BLACK, LINH

ART UNIT	PAPER NUMBER
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2177

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DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/853,978

Applicant(s)

ZARA ET AL.

Examiner

LINH BLACK

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-19 is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, and 20-29 is/are rejected.
- 7) ☒ Claim(s) 11 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 1 and 3-8 are rejected under 35 U.S.C. 101 because claims 1 and 3-8 set forth to steps which in their broadest reasonable interpretation can be performed by hand without implementing on a computer. They are thus considered an abstract idea with practical application in the technological art.

Specification

2. The use of the trademark "Ethernet" has been noted in this application on page 13. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification .

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing address of each inventor. A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-10, 12, and 20-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirota (USP 6477437).

4. Hirota anticipated the independent claims 1 and 20 by the following:

Hirota teaches “an assembly work support system that provides instructions from the system to the worker regarding work procedures, work contents, and particular instruction points, and receives information from the worker. The work support system may be employed in a process for assembling wire harnesses.” – col. 1, lines 13-18.

In the first limitation of claim 1, applicant states that “sending to a manufacturer a customer request for assembly instructions”, and in the second limitation of claim 1, the applicant states that “presenting to assemblers a set of assembly instructions”. Thus, examiner interprets a request for assembly instructions can come either from a customer or an assembler. Also, the assembly instructions would be inherently customized to the grouping of components otherwise assemblers could not assemble a complex product. Fig. 3c essentially shows groupings of instructions specific (or customized) to specific work items or components as claimed. (See also col. 6, lines 16-20).

Hirota teaches a worker, who does the assembly work or an assembler, can send a request to the assembly work support system for needed assembly instructions – fig. 4b; col. 8, lines 49-67; col. 14, lines 15-45. In addition, a request for assembly

instructions in Hiroto is essentially for the group of components as claimed (to assemble a group of components). Moreover, an assembly work support system can be employed to support assembling processes for products' components. Thus, the "assembly work support system" of Hirota can be used by any manufacturers who need support for their assembly lines.

- "sending to a manufacturer a customer request for assembly instructions" – figs. 4a-b; col. 8, lines 55-61; col. 14, lines 15-30.
- "presenting to assemblers a set of assembly instructions which are customized and specific to said grouping of components" – col. 2, lines 57-59; col. 3, lines 55-67; col. 15, lines 48-60.

5. Hirota anticipated claims 2 and 21 by the following:

- "scanning bar-code information from said components" – col. 8, lines 55-61 (a bar code reader for reading in an article number of a wire harness or parts from a code affixed thereto).
- "grouping said bar-code information" – fig. 3c; col. 6, lines 16-20 (data chart showing a relationship between article numbers, work content items, groups of instructions and/or assembly messages, ..., and how the same are loaded into a work register for output); col. 8, lines 1-32.

- “generate said request for assembly instructions based on said grouped bar-code information and on specifications defined by said manufacturer” – col. 8, lines 55-67; col. 11, lines 49-53; col. 12, lines 16-25; fig. 4a, elements s2-s12.

It is inherent that assembly instructions for any manufacturers' products are based on products' specifications. For example, in the computer software field, applications are developed based on applications' specifications. In other words, a specification contains instructions on how software developers will develop sub-programs and put them together to create an application.

6. Hirota anticipated claims 3 and 22 by the following:

- “receiving said set of assembly instructions from said manufacturer” – col. 8, lines 24-32; col. 8, lines 61-67.

7. Hirota anticipated claims 4 and 23 by the following:

- “formatting said received set of assembly instructions such that they are in a format utilizable by said assemblers” – col. 2, lines 54-57; col. 18, lines 10-22.

8. Hirota anticipated claims 5 and 24 by the following:

- “printing out said formatted set of assembly instructions for said assemblers” – col. 1, lines 40-49 and col. 2, lines 23-31 of Hirota discloses “written documents”. (Assembly instructions are normally printed out as written documents for assemblers to read). However, on page 8 of the specification, applicants state

“Alternatively, where assemblers are equipped with PDAs (Personal Digital Assistants) or other display devices capable of receiving data (even, for instance, computer displays), the instructions can be output on the screens of those devices”. Hirota teaches assembly instructions can be displayed on workers’ monitors – col. 8, lines 24-32.

9. Hirota anticipated claims 6 and 25 by the following:

- “waiting to receive said set of assembly instructions from said manufacturer prior to assembling of said group of components” – col. 2, line 64 to col. 3, line 3.

10. Hirota anticipated claims 7 and 26 by the following:

- “assembling said groups of components using said set of assembly instructions” – col. 4, lines 59-65; fig. 4a, elements s12-s22.

11. Hirota anticipated claims 8 and 27 by the following:

- “replying to said customer request by sending said customized set of assembly instructions to said customer” – col. 8, lines 24-32 and 61-67; col. 14, lines 15-31.

12. Hirota anticipated claims 9 and 28 by the following:

“Knowledge base” defined by the applicant as “an artificially intelligent information store that is capable when queried of generating a dynamic set of responses. The knowledge base, which is maintained by the manufacturer is designed to anticipate

possible configurations of components and has logic that can determine what a set of assembly instructions for the queried configuration should contain and what order these instructions should take” in the specification, page 11, last paragraph.

“Knowledge base” defined as “a collection of facts and rules for problem solving.

(The American Heritage Dictionary of the English Language – Fourth Edition).

- “receiving said request for assembly instructions from said customer” - figs. 4a-b; col. 8, lines 55-61; col. 14, lines 15-30.
- “formulating a query for a knowledge base, said query based upon the content of said request” – col. 12, lines 16-35. (In step s6, all of the work content items are read by the CPU 21 in preparation for association with auxiliary data and conversion into assembly messages as appropriate. However, an automatic querying process is performed to read all of the work content items after the bar code reader obtained workers’ inputs: article numbers); fig. 4a, elements s2-s6.
 - knowledge base: fig. 3b, element 21d contains rules; figs. 3a and 3c contain data, facts about work content items (col. 8, lines 1-2), specific instructions for each of the work content items (col. 8, lines 14-16), and auxiliary data corresponding to the contents of the instructions (col. 8, lines 16-18). Proper order of assembly parts (col. 10, lines 25-48).
- “retrieving from said knowledge base said customized set of assembly instructions, said set formed in response to said query” – col. 12, lines 26-50.

13. Hirota anticipated claims 10 and 29 by the following:

- “formatting said retrieved customized set of instructions into a network-ready message” – figs. 2 and 4a; col. 10, lines 7-14; col. 11, lines 63-65.

14. Hirota anticipated claim 12 by the following:

- “said manufacturer and said customer communicate over a communication network” – col. 3, lines 63-65; fig. 2, element 12; col. 10, lines 7-14.

Allowable Subject Matter

15. Claims 13-19 are allowed.

16. Claims 11 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 703-305-0317. The examiner can normally be reached on Monday-Thursday from 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306, for Before Final communications: 703-746-7239, and for After Final communications: 703-746-7238.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-7240.

Linh Black

LINH BLACK
Patent Examiner
Art Unit 2177